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AMENDMENTS TO CLAIMS

1. (Canceled)

2. (Canceled)

3. (Withdrawn)

4. (Canceled)

5. (Canceled)

6-13 (Withdrawn)

14. (Canceled)

15-19 (Withdrawn)

20. (Canceled)

21. (Canceled)

22. (New) An electric machine, comprising:

an electric field structure;

a rotor arranged to rotate relative to the electric field structure;

a helical structure situated between the rotor and a rotary shaft, and a pre-stressed spring situated at one end of the rotor, wherein said helical structure and said spring are arranged to enable axial displacement of the rotor relative to the shaft in response to reverse torque resulting from interaction between said rotor, said magnetic field structure, and a load or driving device.

23. (New) An electric machine as claimed in claim 22, wherein said helical structure comprises a helical structure for movably coupling said rotor and shaft.

24. (New) An electric machine as claimed in claim 22, wherein said helical structure includes a helical nut on the rotor for engaging a corresponding helical groove structure on the shaft.

24. (New) An electric machine as claimed in claim 23, wherein said helical structure further includes ball or roller bearings situated in the helical structure between the rotor and the shaft.

25. (New) An electric machine as claimed in claim 22, further comprising a second pre-stressed spring situated at an opposite end of the rotor, a direction of said axial displacement depending on a direction of rotation of said shaft.

26. (New) An electric machine as claimed in claim 22, wherein said electric machine is a motor.

27. (New) An electric machine as claimed in claim 22, wherein said electric machine is a generator.

28. (New) An electric machine as claimed in claim 22, wherein said magnetic field structure generates a uniform magnetic field along a length of said rotor.

29. (New) An electric machine as claimed in claim 22, wherein said magnetic field structure varies said magnetic fields along a length of said rotor in order to vary magnetic coupling between the rotor and the magnetic field structure and thereby vary operational characteristics of the electric machine with axial displacement of the rotor.

30. (New) An electric machine as claimed in claim 22, wherein electrical characteristics of said rotor vary along a length of the rotor in order to vary magnetic coupling between the rotor and

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the magnetic field structure and thereby vary operational characteristics of the electrical machine with axial displacement of the rotor.

31. (New) An electric machine as claimed in claim 22, wherein physical properties of said rotor vary along a length of the rotor in order to vary magnetic coupling between the rotor and the magnetic field structure and thereby vary operational characteristics of the electrical machine with axial displacement of the rotor.

32. (New) An electric machine as claimed in claim 22, wherein properties of both said magnetic field structure and said rotor are varied in an axial direction to vary magnetic coupling between the rotor and the magnetic field structure and thereby vary operational characteristics of the electrical machine with axial displacement of the rotor.

33. (New) An electric machine as claimed in claim 22, wherein axial displacement of the rotor relative to the shaft causes pulling of a control clutch, transmission device, or other control or testing device.

34. (New) An electric machine as claimed in claim 22, further comprising an external device for controlling said axial displacement of said rotor.

35. (New) An electric machine as claimed in claim 22, wherein said external device is selected from the group consisting of a manual, electrical, hydraulic, or mechanical control device.

36. (New) An electric machine as claimed in claim 22, wherein an axial length of said rotor is greater than an axial length of said magnetic field structure.